

5.4

Describe symptoms and prevalence of two disorders (anxiety, affective, or eating disorders)

Prevalence is a statistical concept in medicine (or psychiatry). It refers to the percentage of individuals within a population who are affected by a specific disorder either currently or during

their lifetime. Prevalence rates change cross-culturally and between genders.

Affective disorder: major depression

Symptoms

Typical symptoms of major depression (depressive episodes without mania) according to the DSM-IV-TR include

- **Physiological:** Fatigue or loss of energy, significant weight loss or gain, loss of appetite, headaches, and pain.
- **Cognitive:** Feelings of worthlessness or excessive guilt; difficulties concentrating; negative attitudes towards the self, the world and the future. (Feelings of guilt and worthlessness seem to be symptoms that are primarily experienced in Western cultures).
- **Emotional:** Distress and sadness, loss of interest in the world.
- **Behavioural:** Disturbed sleep patterns, self-destructive behaviour (suicidal thoughts), and avoidance of social company.

Prevalence

- The National Comorbidity Study (1994) found that prevalence for lifetime major depression in the USA was

17.1%. The National Institute of Mental Health (NIMH) in the USA found that lifetime prevalence of depression was 16.6% with 13.2 % for males and 20.2 for females (Kessler et al. 2005).

- **Andrade and Caraveo (2003)** found that lifetime prevalence of depression varies across cultures (e.g. 3% in Japan and 17% in the USA).
- **Poongothai et al. (2009)** found an overall prevalence rate of depression in the city of Chennai in South India of 15.9. The study was based on 25,455 participants. Depression was assessed through a self-report instrument (The Patient Health Questionnaire). Depressed mood was the most common symptom (30.8%) followed by fatigue (30.0%). Suicidal thoughts were less common (12.4%). Generally, depression rates were higher in the low income group (19.3 %) compared to the higher income group (5.9). Prevalence of depression was also higher among divorced (26.5%) and widowed (20%) compared to currently married respondents (15.4%).
- **Kessler et al. (1993)** found a lifetime prevalence for major depression of 21.3% in women compared to 12.7% in men.

Eating disorder: bulimia nervosa

Symptoms

Typical symptoms of bulimia according to the DSM-IV-TR include:

- **Physiological:** Nutritional deficiencies and hormonal changes could lead to disturbances in the menstrual cycle, fatigue, digestive problems, muscle cramping.
- **Cognitive:** Distorted body image, low self-esteem, sense of lack of control during binge-eating episodes.
- **Emotional:** Fear of becoming fat (fat phobia), body dissatisfaction, and depressed mood.
- **Behavioural:** Self-starvation in combination with recurrent binge eating episodes and compensatory behaviour such as vomiting and misuse of laxatives to avoid weight gain.

Prevalence

- **Fairburn and Beglin (1990)** found that bulimia nervosa affected between 1 and 2 % of young women in the USA

and the UK. APA (200) estimated 1–3% of young adult females to have Bulimia. The disorder occurs much less frequently in men.

- **Drewnowski et al. (1988)** conducted a telephone survey with a representative sample of 1,007 male and female students in the USA. They found that 1% of the women and 0.2% of the men were classified as bulimic. Bulimia nervosa was most prevalent among undergraduate women living on campus (2.2%).
- **Keel and Klump (2003)** performed a meta-analysis of research on bulimia nervosa and found an increase in people diagnosed with bulimia from 1970 to 1993. There are no incidence data for bulimia prior to 1970. The diagnostic criteria for bulimia have become more stringent over the years and this has resulted in the increase of incidences. According to the researchers, self-report surveys tend to produce higher estimates of bulimia nervosa prevalence than structured clinical interviews.

5.5

Analyse etiologies (in terms of biological, cognitive and/or sociocultural factors) of one disorder from two of the following groups: anxiety disorders, affective disorders, eating disorders

Etiology means the scientific study of causes or origins of diseases or abnormal behaviour. The reason psychiatrists are interested in etiology is the assumption that treatment should be related to the cause of the disorder, e.g. if the disorder is

biological in origin, the treatment should also be biological (the biomedical model). This unit will analyse etiologies of one affective disorder (major depression) and one eating disorder (bulimia nervosa).

Affective disorder: major depression

Biological factors

Neurotransmitters: The serotonin hypothesis

- The serotonin hypothesis suggests that depression is caused by low levels of serotonin (**Coppen, 1967**). Serotonin is a neurotransmitter produced in specific neurons in the brain and they are called "serotonergic neurons" because they produce serotonin.
- Anti-depressants in the form of selective serotonin reuptake inhibitor (SSRI) block the reuptake process for serotonin. This results in an increased amount of the serotonin in the synaptic gap. The theory is that this increases serotonergic nerve activity leading to improvement in mood.
- SSRI drugs such as Prozac, Zoloft, and Paxil are now among the most commonly sold anti-depressants and this has been taken as indirect support of the serotonin hypothesis. According to **Lacasse and Leo (2005)** this is an example of backward reasoning. Assumptions about the causes of depression are based on how people respond to a treatment and this is logically problematic.

Henninger et al. (1996) performed experiments where they reduced serotonin levels in healthy individuals to see if they would

develop depressive symptoms. The results did not support that levels of serotonin could influence depression and they argued that it is necessary to revise the serotonin hypothesis.

Kirsch et al. (2002) found that there was publication bias in research on effectiveness of SSRI in depression. In fact, if the results of all studies (including the ones that had not been published) were pooled it would seem that the placebo effect accounted for 80% of the anti-depressant response. Of the studies funded by pharmaceutical companies, 57% failed to show a statistically significant difference between anti-depressant and a neutral placebo. This and similar studies cast doubt on the serotonin hypothesis.

Evaluation of the serotonin hypothesis of depression:

- There is some evidence that serotonin may be involved in depression and that this may be linked to stress and stress hormones such as cortisol.
- Scientific research has failed to show a clear link between serotonin levels and depression. The fact that anti-depressant drugs like the SSRIs can regulate serotonin levels and produce an effect does not mean that low serotonin levels cause depression.

Genetic predisposition

This theory of genetic predisposition is based on the assumption that disorders have a genetic origin. In order to study this, researchers study twins and families. In the twin method both monozygotic twins (MZ) and dizygotic twins (DZ) are compared. MZ twins share 100% of their genes but DZ

twins share only around 50%. The assumption is that if a predisposition for a psychiatric disorder is inherited, then concordance rates should be higher in MZ twins than in DZ twins. If one twin is diagnosed with a disorder and the other twin is also diagnosed with the same disorder, the twins are said to be concordant.

Nurnberger and Gershon (1982) reviewed seven twin studies on major depression. The results indicated that genes could be a factor in depression. The concordance rates for major depression were consistently higher for MZ twins (65% on average across the studies) than for DZ twins (14%). This supports the theory that genetic factors could predispose people to depression. Since the concordance rate is far below 100% nothing definite can be said about genetic inheritance except that environmental and individual psychological factors could also play an important role in etiology. There is also the problem with co-morbidity: people suffering from depression often suffer from other psychological disorders as well (e.g. anxiety, and

Sullivan et al. (2000) conducted a meta-analysis of twin studies including 21,000 twins to investigate the genetic influence on major depression. They found that MZ twins were more than twice as likely to develop major depression if their co-twin had the disorder compared to DZ twins. On average the study showed that genetic influence in developing major depression was between 31% and 42%. The study also showed that non-shared environmental factors were important. The researchers concluded that major depression is a familial disorder with a strong genetic component and that it is a complex disorder resulting from the interaction of genetic and environmental influences.

❖ Evaluation of the genetic theory of depression

There seems to be a genetic vulnerability to depression (as seen in the twin studies) but depression is a complex disorder and

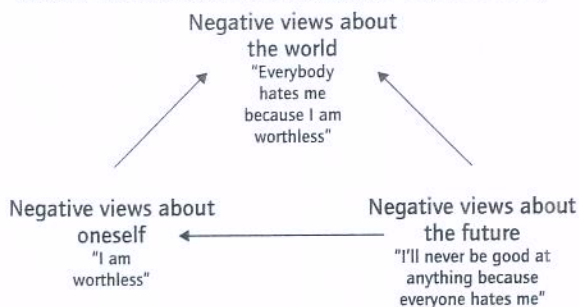
environmental factors such as continuous stress seem to play an important role in the development of the disorder as well.

Cognitive factors

This approach to etiology deals with the role of "thinking" and "negative cognitive schemas" called "depressogenic schemas".

Beck (1976) Cognitive theory of depression (negative cognitive triad)

- According to this theory depression is caused by inaccurate cognitive responses to events in the form of negative thinking about oneself and the world. People's conscious thoughts are influenced by negative cognitive schemas about the self and the world (depressogenic schemas). This results in negative automatic thoughts and dysfunctional beliefs. This explanation is contrary to traditional theories about depression where negative thinking is seen as a *symptom* of depression and not the cause.
- Beck's theory can be seen within the *diathesis-stress model* of depression. Depressive thinking and beliefs (depressogenic schemas) are assumed to develop during childhood and adolescence as a function of negative experiences with parents or other important people. The depressogenic schemas constitute a vulnerability (diathesis) that influences an individual's reaction when faced with stressors (e.g. negative life events or rejection). Such events tend to produce negative automatic thoughts (cognitive biases) based on three themes: negative thoughts about the self, the world, and the future (negative cognitive triad).



- Boury et al. (2001) investigated Beck's theory and found a significant correlation between amount of negative automatic thoughts and the severity of depression. The study also showed that the duration of depression was influenced by the frequency of negative cognitions. The researchers argued that it is difficult to determine whether cognitive distortions caused depression or if depression resulted in cognitive distortions.

Evaluation of Beck's cognitive theory of depression

- The theory has resulted in a valuable instrument to measure depression (The Beck Depression Inventory: BDI) and an effective psychological treatment (cognitive behavioural therapy). The theory has also generated a large amount of research.
- The theory is effective in *describing* many characteristics of depression. For example, depressed individuals are considerably more negative in their thinking than non-depressed individuals. People who suffer from depression generally think more negatively about themselves and the world, even when they are not depressed.
- The limitation of Beck's theory is perhaps that it is difficult to confirm that it is the negative thinking patterns that cause depression but there has been some empirical support of the causal aspects of the theory. Lewinshohn et al. (2001) found that negative thinking, dissatisfaction with oneself and high levels of life stressors preceded episodes of depression. The study was a longitudinal prospective study with 1,500 adolescents. The participants who started out with high levels of dysfunctional beliefs were more likely to develop major depression after a stressful life event. This confirms that dysfunctional beliefs (cognitive vulnerability) may play a role in triggering depression after major stress since participants who scored low or medium in dysfunctional beliefs did not develop depression after a stressful life event.

Sociocultural factors

- Social factors such as poverty or living in a violent relationship have been linked to depression. Women are

more likely to be diagnosed with depression than men and one reason could be linked to the stress of being responsible for many young children and lack of social support.

Brown and Harris (1978) Social factors in depression

Aim: To investigate how depression could be linked to social factors and stressful life events in a sample of women from London (vulnerability-stress model of depression).

Procedure In London, 458 women were surveyed on their life and depressive episodes. The researchers used interviews where they addressed particular life events and how the women had coped.

Results In the previous year, 37 women (8% of all the women) had been depressed. Of these, 33 (90%) had experienced an adverse life event or a serious difficulty. Working-class women with children were four times more likely to develop depression than middle-class women with children. The researchers found that vulnerability factors such as lack of social support, more than

three children under 14 years at home, unemployment and early maternal loss, in combination with acute or ongoing serious social stressors, were likely to provoke depressive episodes.

Evaluation The study was exceptional in that it showed that social factors (and not only personality factors) were involved in development of depression. The results were extremely important at establishing a new approach in understanding depression. Etiology of depression now often includes consideration of social factors. The sample in the study was gender biased (only female respondents) so it is not possible to generalize the findings to men. The semi-structured interview was useful to gather in-depth information of how the women perceived their own situation.

Evaluation of the sociocultural theory of depression

The theory has received support not only from the key study by Brown and Harris (1978). It is generally accepted that social stressors (e.g. war, urbanization, or restricted gender roles) play a role in mental health. In the case of women, there are cultural

expectations of women taking care of the children and the household. Women are also more likely to be exposed to violence, which could explain the higher prevalence of depression in women.

Eating disorder: Bulimia nervosa

Bulimia nervosa is a serious psychological disorder characterized by binge eating episodes followed by

compensatory behaviours such as dieting, vomiting, excessive exercise and misuse of laxatives (see unit 5.4 for symptoms).

Biological factors

Kendler et al. (1991) Twin research to study genetic vulnerability in bulimia nervosa

Aim To investigate risk factors and genetic inheritance in bulimia nervosa.

Procedure A sample of 2,163 female twins participated in the study. One of the twins in each pair had developed bulimia. The study was longitudinal and the researchers conducted interviews with the twins to see if the other twin would develop bulimia and if concordance rates were higher in monozygotic twins (MZ) than in dizygotic twins (DZ).

Results Overall the concordance rate for bulimia was 23 % in MZ twins compared to 9% in DZ twins.

Evaluation The results indicate a heritability of 55%, but this leaves 45% for other factors. Genetic vulnerability may predispose an individual but other factors trigger the disorder and it is important to investigate environmental factors that might interact with the genetic predisposition. The study was a "natural experiment" so the researchers did not manipulate variables and there was no control, so it is not possible to establish a cause-effect relationship. The participants were all women so the findings cannot be generalized to men. It is also questionable whether twins are representative of the population. The study does not take environmental factors into account. It could be that twins grow up in the same dysfunctional environment. It is very difficult to find out the relative importance of genetic inheritance and environmental factors.

Cognitive factors

Body-image distortion hypothesis

- **Bruch (1962)** claimed that many patients with eating disorders suffer from the cognitive delusion that they are fat. It may be that when patients evaluate their own body size, they are influenced by emotional appraisal rather than their perceptual experience.
- **Fallon and Rozin (1985)** showed nine pictures of different body shapes, from very thin to very heavy, to 475 US undergraduates of both sexes and asked them to indicate the

body shape (1) most similar to their own shape, (2) most like their ideal body shape, and (3) the body shape of the opposite sex to which they would be most attracted. Women consistently indicated that their current body shape was heavier than the most attractive body shape. Their ideal body shape was also much thinner than the one they had chosen as similar to their own body shape. Men chose very similar figures for all three body shapes. The researchers concluded that men's perceptions helped them stay satisfied with their body shape whereas women's perceptions put pressure on them to lose weight. These sex differences could probably be

linked to a higher prevalence of dieting, anorexia, and bulimia among American women than among American men.

Weight-related schemata model

- **Fairburn (1997)** suggested that people with eating disorders had distorted weight-related schema and low self-esteem. The distorted beliefs and attitudes towards body shape and weight develop partly because of the high status given to looking thin and attractive. Individuals strive to control body

weight to stay thin and they base their self-worth on being thin, i.e. they have a weight-related self-schema that distorts the way they perceive and interpret their experiences. For some people, their concerns and prioritization of weight control may reflect a wider lack of self-esteem and a vulnerability to cultural messages about body weight. They think they will feel better if they lose weight but this obsession with weight control may lead to depression and intensified feelings of low self-esteem because weight control is the major way of maintaining self-worth.

Sociocultural factors

- Perceptions of the perfect body are influenced by cultural ideals. In the West, images of the ideal body shape for women have changed over the years from an hourglass shape to a slimmer shape.
- According to **Wardle and Marsland (1990)** body shape can be a major criterion in self-evaluation and evaluation of others. Many people have prejudices against overweight people.

Levine et al. (1994) investigated the relationship between sociocultural factors and eating attitudes and behaviours.

- In the USA, 385 middle school girls (aged 10–14 years) answered questions about eating behaviour, body satisfaction, concern with being slender, parents' and peers' attitudes, and magazines with regard to weight management techniques and the importance of being thin.
- The majority of the respondents said they received clear messages from fashion magazines, peers and family members that it is important to be slim. They also said that the same sources encouraged dieting or other methods to keep a slender figure.
- The study found two important factors in the drive for thinness and disturbed patterns of eating: (1) reading magazines containing information about ideal body shapes and weight management and (2) weight-related or shape-related teasing or criticism by family.
- The results indicate that body dissatisfaction and weight concerns reflect sociocultural ideals of a female role and raises the possibility that some adolescent girls live in a subculture

of intense weight and body-image concern that places them at risk for disordered eating behaviour such as bulimia nervosa.

Jaeger et al. (2002) conducted a cross-cultural investigation of the relationship between body dissatisfaction and the development of bulimia nervosa.

- A cross-cultural sample of 1,751 female medical and nursing students from 12 nations participated.
- The participants saw a series of 10 body silhouettes, designed to be as culture-neutral as possible in order to measure body dissatisfaction. The participants' BMI was taken, and they answered questions on body dissatisfaction, self-esteem, and dieting behaviour.
- The most extreme body dissatisfaction was found in northern Mediterranean countries, followed by northern European countries. Countries in the process of westernization showed an intermediate amount of body dissatisfaction. Non-western countries showed the lowest levels. Body dissatisfaction was the most important factor in dieting behaviour in most countries and it was found to be independent of self-esteem and BMI.
- The results indicated that the body shapes represented in the media could encourage dissatisfaction with body shape and dieting behaviour.
- The study used culture as a variable but it is impossible from these results to say that culture causes bulimia because "culture" is not a controlled variable. The study only focused on sociocultural factors and other factors (e.g. biological) were not considered. The results cannot be generalized to men.

5.6

Discuss cultural and gender variation in prevalence of disorders

Prevalence is a statistical concept in medicine (or psychiatry). It refers to the percentage of individuals within a population who are affected by a specific disorder at a given time. Two disorders

(major depression and bulimia nervosa) will be addressed in this section.

Cultural variation in prevalence of depression

- **Weisman et al. (1996)** found cross-cultural variation in data from 10 countries. The study found that the lifetime prevalence of depression ranged from 19.0 % (Beirut in Lebanon) to 1.5 % (Taiwan). Korea had rates of depression twice as high as those in Taiwan (2.9%) although they are both Asian countries. Paris had a rate (16.4%) close to that of Beirut although Beirut had experienced war for 15 years. Women had a higher rate than men in all countries. The researchers argue that different risk factors, social stigma, cultural reluctance to endorse mental symptoms as well as methodological limitations of the study may account for some of the differences.

- **Marsella et al. (2002)** argue that depression has long been a major topic of concern in Western medical history but it seems that depression is now becoming the world's foremost psychiatric problem because of global challenges such as war, natural disasters, racism, poverty, cultural collapse, ageing populations, urbanizations, and rapid social and technological changes. There is growing evidence that rates of depression are increasing, particularly in individuals born after the Second World War.

Possible explanations of cultural variation in the prevalence of depression

Differences in social and cultural background

- **Dutton (2009)** finds that cultural variation in prevalence of major depression could be due to cultural differences in stress, standards of living, and reporting bias. People in some countries have much harder lives. They may be exposed to war, civil war, rapid political and economic changes, crime, and discrimination. Unemployment and standards of living also differ across cultural groups.
- **Sartorius et al. (1983)** found that there are substantial cultural differences in the *stigma* associated with mental health problems. It could be that individuals in cultures where psychological disorders are associated with stigma (e.g. the Middle East or China) are more likely to report physical pain instead of psychological problems.

Variation in symptoms could indicate that symptoms of depression can be culturally influenced. See **Kleinman (1982)** on neurasthenia as an alternative diagnosis for depression which could explain a cultural variation in the prevalence of depression (unit 5.3).

Urbanization

- **Marsella (1995)** proposed that urban settings are associated with increased stress due to problems of housing, work, marriage, child rearing, security, and other urban difficulties. Urban crowding, poor working conditions or underemployment, chronic hunger, gender discrimination, limited education and human rights violations are all thought to weaken both individuals and the social support that could serve as buffers against mental health problems.

Gender variation in prevalence of depression

- According to **Nolen-Hoeksema (2001)** women are about twice as likely as men to develop depression. She argues that in spite of three decades of research on gender difference in depression, it has not been possible to find a variable that single-handedly can account for the gender difference in depression.

- Women's lifetime prevalence for major depressive disorder in the USA was found to be 21.3% compared to 12.7% for men (**Kessler et al. 1993**). Females are more likely to report physical and psychological symptom and to seek medical help.
- According to **Piccinelli and Wilkinson (2000)** the gender differences in depression are genuine and not just a result of differences in diagnostic procedures.

Possible explanations for gender variation in prevalence of depression

Biological factors: hormones

- Biological explanations for women's higher vulnerability to depression have focused on the effect of sex hormones (oestrogen and progesterone) on mood. According to **Nolen-Hoeksema (2001)** there is little scientific support to the theory that women are more depressed than men only because of differences in sex hormones.
- Adverse experiences in childhood (e.g. childhood sexual abuse) have been linked to increased risk of developing depression partly because of long-term dysregulation of the stress response system (HPA axis). Weiss et al. (1999) suggested that women are more likely than men to have a dysregulated response to stress because they are more likely to have been exposed to regular episodes of traumas early in life.
- **Nolen-Hoeksema (2001)** suggests that women and men experience the same stressors but women seem to be more vulnerable to develop depression because of gender differences in biological responses to stressors, self-concepts or coping styles. Experiences of continuous stress could increase physiological and psychological reactivity to stress and lead to hyperactivity of the stress system. This could increase vulnerability to depression (diathesis-stress model).

Sociocultural factors

- **Women's low power and status: Nolen-Hoeksema (2001)** Women have less power and status than men in most societies. They are more likely to experience sexual abuse, constrained choices, poverty, and lack of respect. These factors can contribute directly to depression because they make women feel that they are not in control of their lives. Women's social roles carry a number of chronic strains, which could contribute directly or indirectly to depression. Higher rates of depression in women could be due to the fact that women face a number of chronic burdens in everyday life as a result of their social status and roles. This is supported in **Brown and Harris (1978)** in unit 5.5.
- **The role strain hypothesis** suggests that social roles and cultural influences contribute to the higher ratio of female depression. In many cultures married women have no paid employment and they have to rely on the role of housewife for identity and self-esteem. This may be rather frustrating at times and it is not highly valued in modern society. **Bebbington (1998)** found that marriage could have negative effects on women. The researcher speculated that many women have limited choices after marriage. Staying at home and looking after small children is generally associated with higher levels of depression.

Cultural variation in prevalence of bulimia

- Cultural beliefs and attitudes have been identified as factors leading to the development of eating disorders (etiology). Prevalence of eating disorders varies among different ethnic and cultural groups and across time within such groups. Bulimia nervosa was first identified and classified as a specific disorder in 1979.
- **Makino et al. (2004)** compared prevalence of eating disorders in Western and non-Western countries based on a review of published medical articles. They found that prevalence rates in Western countries for bulimia nervosa ranged from 0.3% to 7.3% in females and from 0% to 2.1% in males. Prevalence rates for bulimia in non-Western countries ranged from 0.46% to 3.2% in females. The study concluded that prevalence of eating disorders appears to be increasing in non-Western countries but it is still lower than in Western countries.

Explanations of cultural variation in prevalence of bulimia

The Westernization hypothesis

- According to **Rubinstein and Caballero (2000)** eating disorders seem to have become more common among younger females after the Second World War, where female beauty ideals have gradually become thinner. This is reflected in the increase of articles on dieting in women's magazines in the same period as well as in thinner icons of female beauty (e.g. Miss America).
- One explanation for the development of eating disorders such as bulimia in non-Western countries is a perceived social pressure to conform to the standards of female beauty imposed by modern industrial society or Western culture.

Nasser (1994) used questionnaires to investigate eating attitudes in a sample of 351 girls in secondary school in Egypt. He found that 1.2% of the girls fulfilled the criteria for a diagnosis of bulimia nervosa and 3.4% qualified for a partial diagnosis. The results indicate that eating disorders are emerging in cultures that did not know such disorders in the past where a round female

body was still considered attractive and desirable, and was associated with prosperity, fertility, success, and economic security. The researcher concluded that no society is truly immune to the development of eating disorders because of the globalization of culture through the media.